Client's ref: ERSO-910035 張鈞傑等 Our file No.: 0412-8665usf/Jacky/Steve

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ABSTRACT OF THE DISCLOSURE

A method of forming a TFT and a method of forming the TFT on a color filter. With a first reticle, a metal layer and a hole exposing a substrate are defined. A color filter is formed in the hole. With a second reticle, a silicon island is defined above the color filter. With a third reticle, a photoresist layer is formed, and a gate and a gate oxide layer are defined. The photoresist layer is wider than the gate and the gate oxide layer, but narrower than the semiconductor island. Using the photoresist layer as a mask, a source/drain region is formed in the silicon island by implantation. The photoresist layer is then removed. Using the gate as a mask, a LDD region is formed in the silicon island by implantation. With a fourth reticle, a transparent electrode is defined. Thus, a TFT is formed on the color filter.